

## 1           PACKET PROCESSOR WITH MULTI-LEVEL POLICING LOGIC

## ABSTRACT OF THE DISCLOSURE

5           A switch includes a backplane and multiple packet  
processors. One or more packet processors include multi-level  
policing logic. The packet processor receives a packet and  
classifies the packet into multiple policeable groups. The  
10 packet is compared against bandwidth contracts defined for the  
policeable groups. Nested lookups are performed for the packet  
in a policing database to identify the multiple groups and to  
retrieve policing data for the multiple policeable groups. The  
15 policing results, which may be combined into a single policing  
result by taking the worst case policing result, are applied to  
disposition logic as recommendations, and are combined with  
other disposition recommendations to make a disposition decision  
for the packet.

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